

Contract Pay Auto- Population (CPAP) Initiative



BPEL Tool Discussion

Wednesday, November 17, 2010

ASN(RDA) DASN(ALM) eBusiness

Bruce Lowrey

AGENDA

- MOCAS Contract Pay Administration
 - What is MOCAS?
 - MOCAS Magnitude of Operations
 - The Procure-to-Pay Initiative
 - The Navy Bill
 - DCMA Contract Management Process
 - Electronic Data Process
- Oracle BPEL Tool
 - What is it? What does it do?
 - Commands Impacted
 - Most Prominent Errors
- Contracting Office Outreach
 - Training and Communication
 - Mitigation Approaches
- Proposed CPAP CDR Process
 - Current CDR Process
 - Proposed CPAP CDR Process
 - Timeline
- Way Ahead
 - Known Workflow Issues
 - Seaport Data Analysis
 - Next Steps
 - CPAP POAM
- Questions & Answers
 - Open Discussion

**** 15 MINUTE BREAK ****

Major Acquisition - MOCAS



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- Integrated system supporting post award contract administration
- Used by:
 - ✓ DCMA Contract Administration Offices
 - ✓ DFAS Contract Pay (HQ0337, HQ0338, HQ0339)
 - ✓ Procurement Offices / Resource Managers
 - ✓ Funding Stations (Prevalidation Business Partners)
- Pays More Complex Contracts
 - ✓ High Dollar
 - ✓ Multiyear Contracts
 - ✓ Multiple Deliverables
- Makes Financing Payments
 - ✓ Progress payments
 - ✓ Performance-based payments
 - ✓ Commercial item financing
 - ✓ Interim cost payments

Need for the P2P Initiative: MOCAS Magnitude



● MOCAS - FYTD 10* (through April)

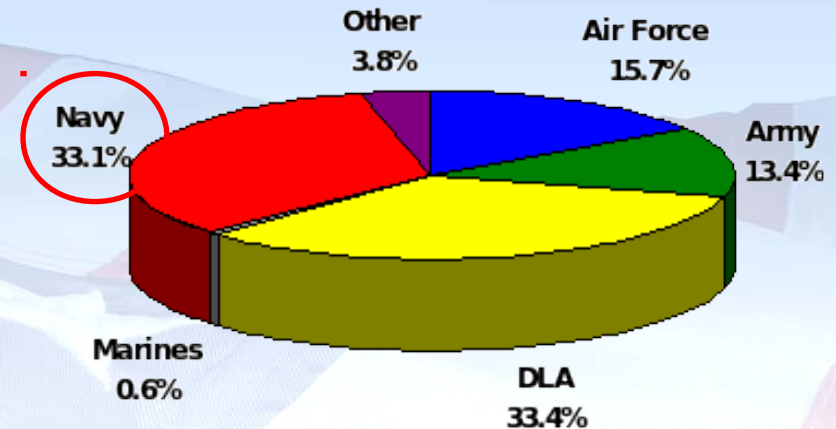
- ✓ 346,010 Active Contracts
- ✓ 18,970 Active Contractors
- ✓ 615,431 Invoices Processed
- ✓ \$132.1 Billion Disbursed

● MOCAS - FY 09

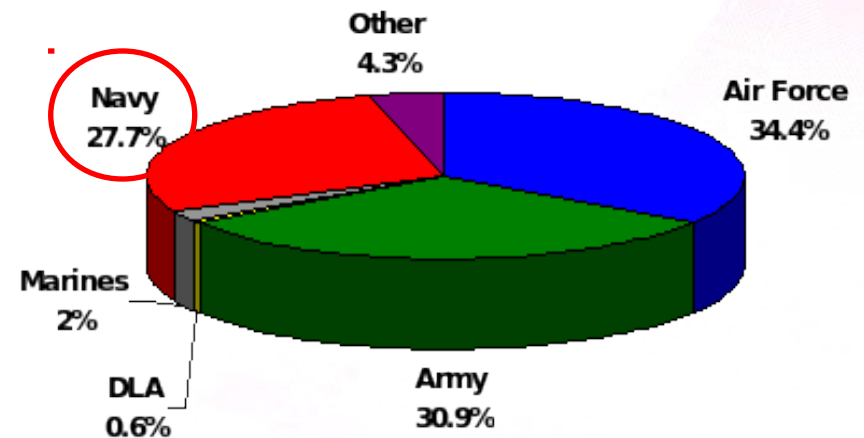
- ✓ 336,819 Active Contracts
- ✓ 18,792 Active Contractors
- ✓ 1,324,577 Invoices Processed
- ✓ \$195.4 Billion Disbursed

*AS of 04/30/10

Total Contracts - FY 10



Obligation Dollars by Service - FY 10



The Procure to Pay (P2P) Initiative



- **Purpose**

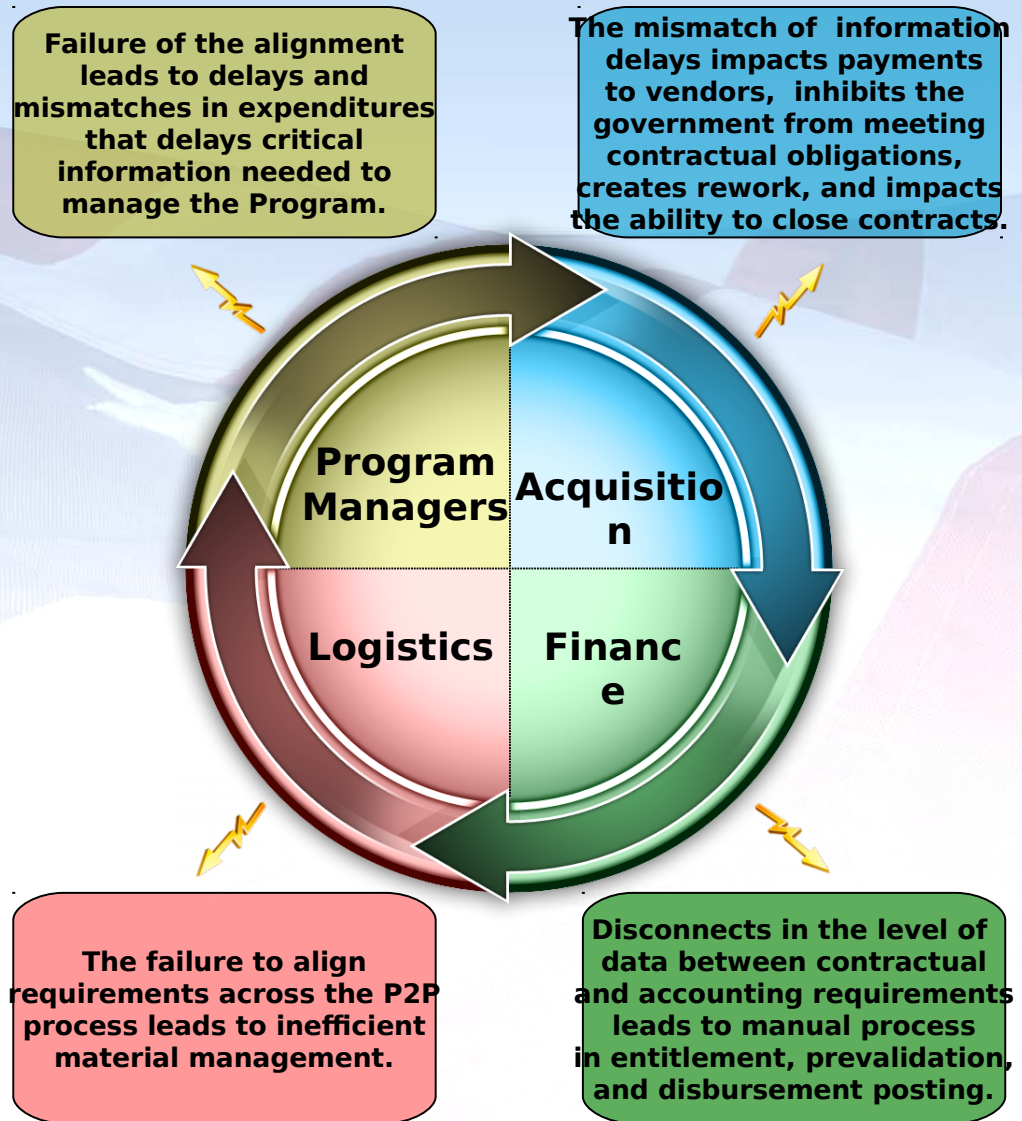
To provide a more cost-effective procure-to-pay process in support of equipping and supplying the Services.

- **Goals**

- ✓ Standardization and consistency
- ✓ Identify areas that require manual touch points
- ✓ Identify areas that require Policy and Procedure changes

- **Scope**

- ✓ Manual process or touch points
- ✓ Initial scope Navy with the ability to export to other components
- ✓ Main P2P entitlement system analyzed is MOCAS



AUGUST → OCTOBER WORKCOUNT DATA

AUGUST

006	026	036	TOTALS
\$32.23	\$20.37	\$11.54	
51,169	7,116	4,095	62,380
\$1,649,176.87	\$144,952.92	\$47,256.30	\$1,841,386
82.03%	11.41%	6.56%	
POTENTIAL			\$719,865.20
MONTHLY LOSS			\$1,121,520.89

SEPTEMBER

006	026	036	TOTALS
\$27.80	\$19.15	\$9.63	
57,191	8,901	4,814	70,906
\$1,589,909.80	\$170,454.15	\$46,358.82	\$1,806,723
80.66%	12.55%	6.79%	
POTENTIAL			\$682,824.78
MONTHLY LOSS			\$1,123,897.99

OCTOBER

006	026	036	TOTALS
\$27.80	\$19.15	\$9.63	
45,986	7,275	4,396	57,657
\$1,278,410.80	\$139,316.25	\$42,333.48	\$1,460,061
79.76%	12.62%	7.62%	
POTENTIAL			\$555,236.91
MONTHLY LOSS			\$904,823.62

**3-Month
Total :**

~~\$3,150,242.50~~

FY10 billing rates are as follows:

Output 6 (manual) = \$32.23

Output 26 = \$20.37

Output 36 = \$11.54

Output 6: Manual

Output 26: Electronic Contract

Output 36: Electronic Contract
& Electronic Invoice

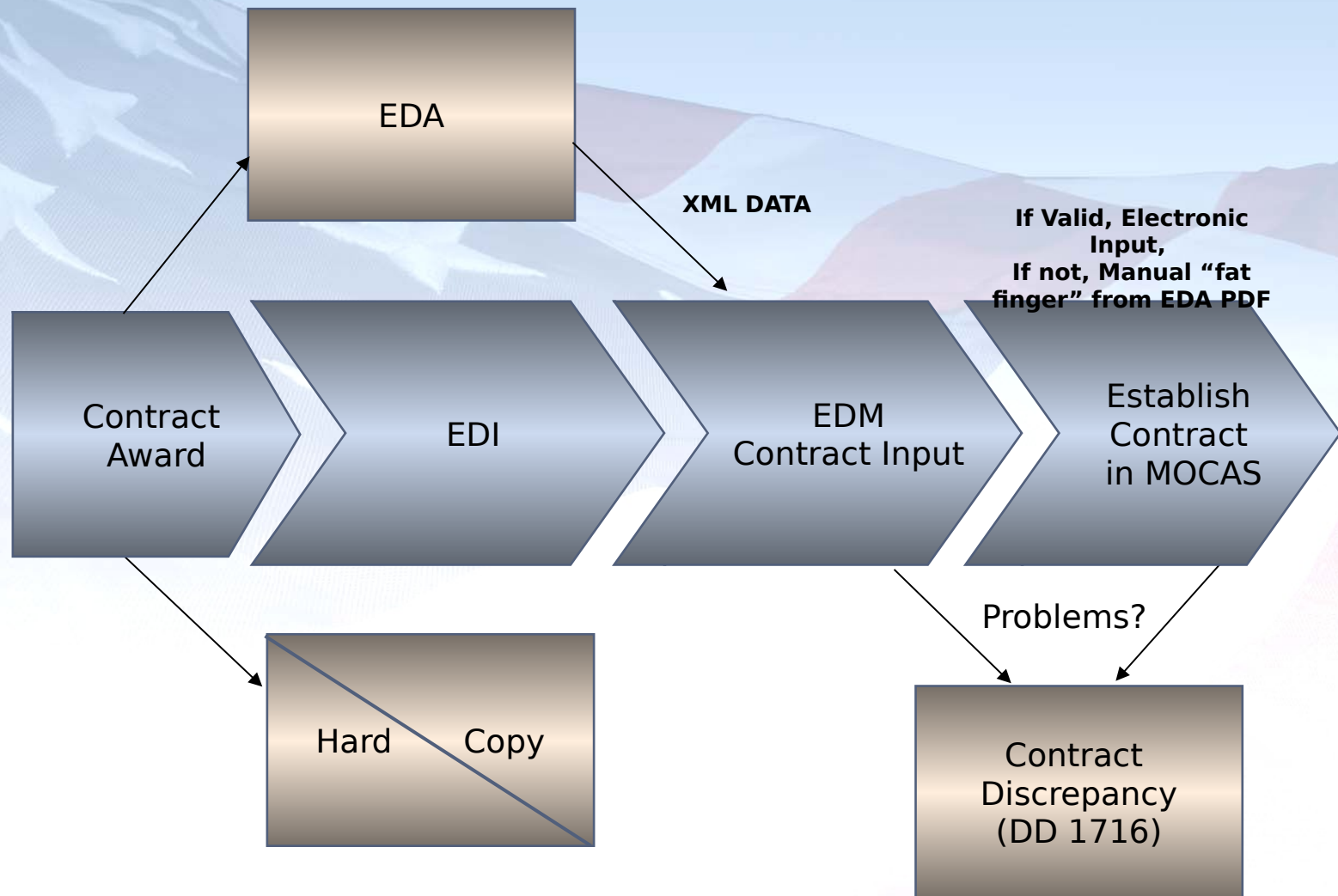
FY11 billing rates are as follows:

Output 6 (manual) = \$27.80

Output 26 = \$19.15

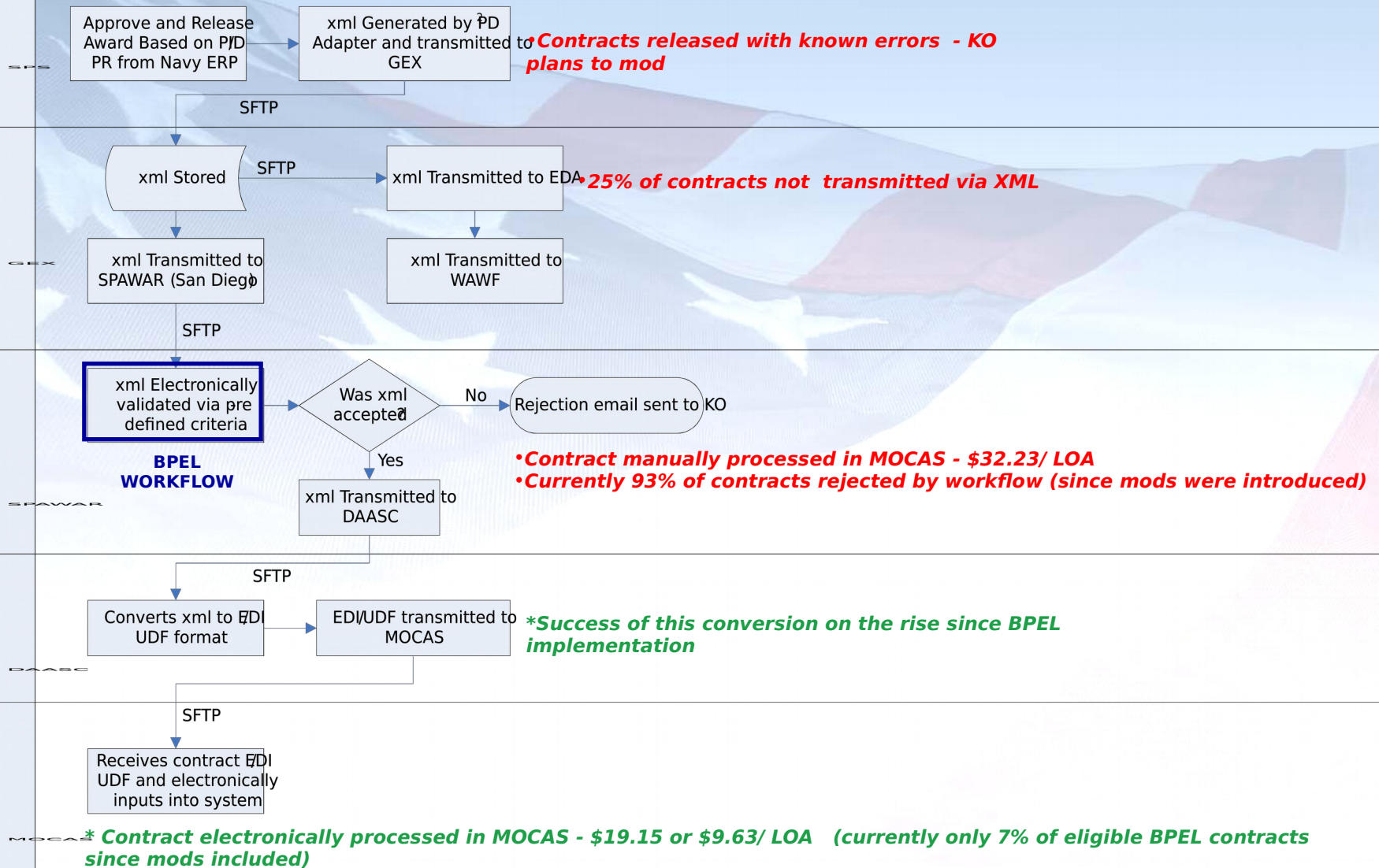
Output 36 = \$9.63

MOCAS Contract Management Process



SPS to MOCAS Data Transfer

Process



BPEL Workflow Overview - What is it?

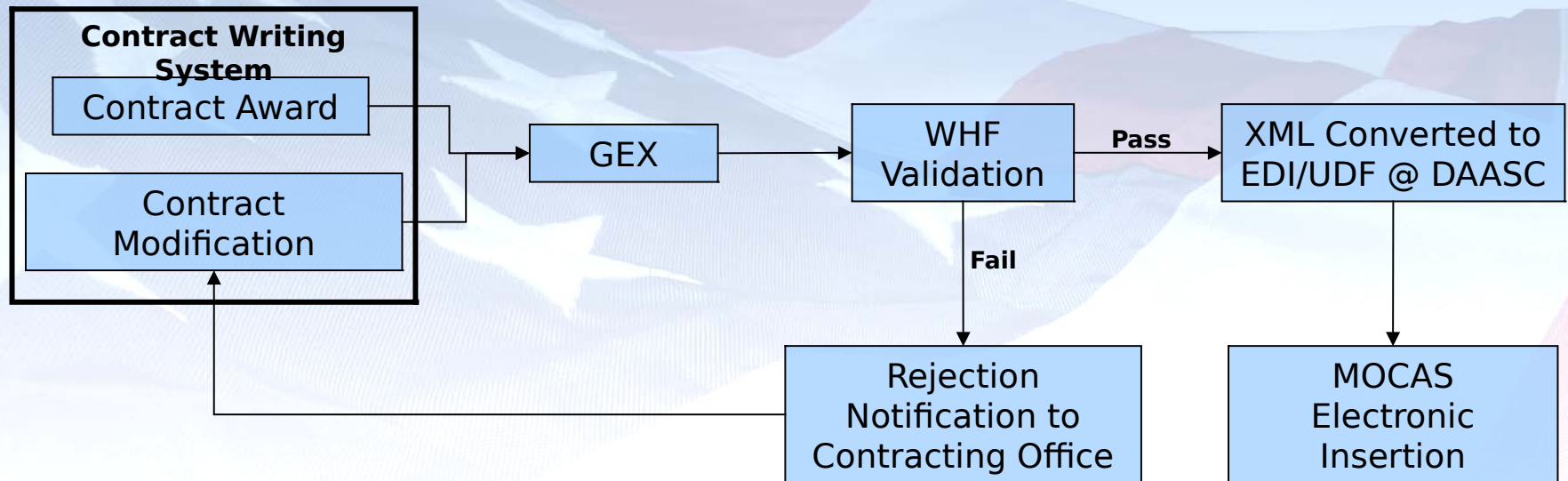
Navy Workflow Hosting Facility (WHF) Facts:

- Initial implementation occurred October 2009
- Utilizes Oracle Business Process Execution Language (BPEL)
- A BPEL Workflow was developed to validate DoN XML data on its way to MOCAS
- In first five (5) months, successful Navy electronic MOCAS insertion (awards only) increased from **12%** to **42%**

Why is the workflow necessary?

- MOCAS electronic insertion saves ~**\$18.17** per funded CLIN
- Current MOCAS process is reactive – KOs are only notified via CDR when a contract does not meet electronic insertion data criteria
- Workflow is more proactive – halts all non-conforming XML, notifies the contracting office POC, and give the user the opportunity to correct the issue via modification
- Allows Navy to manage its XML and gain insight into business processes that are currently causing high manual insertion rates
- Eliminates burden on DCMA to “massage” data to flow electronically

BPEL Workflow Overview - What does it do?



BPEL Workflow Overview - How We're Doing

- In March 2010, 42% of Navy awards were successfully inserted electronically (**up from 12% in October 2009**)
- In August 2010, modifications were turned on in the workflow. Unfortunately, with older, established contracts with multiple existing errors, the success rate has fallen to **under 10%**.
- Top 6 Functional Issues Causing Rejection in FY10:
 - ✓ *Line Item(s) Missing All Delivery Elements - 35%*
 - ✓ *No Delivery Quantity - 16%*
 - ✓ *Contract Missing Total Quantity - 12%*
 - ✓ *Line Item Missing Unit Price - 11%*
 - ✓ *Line Item Missing Funding - 5%*
 - ✓ *Subline Item Missing Funding - 5%*

August BPEL Error Data Detail

ERROR COUNT BY SYSCOM

SYSCOM	TOTAL ERRORS REPORTED	% OF OVERALL ERRORS
NAVAIR (NAVAIR)	14,939	60.34%
SPAWAR (SPAWAR)	5,411	21.86%
NAVSUP (NAVSUP)	3,542	14.31%
FISC & DLA	547	2.21%
NAVSEA (NAVSEA)	165	0.67%
SSP(SSP)	123	0.50%
NAVFAC (NAVFAC)	31	0.13%
	24,758	

ERROR CODE

TOTAL ERROR CODE OCCURRENCE

PERCENTAGE OF TOTAL ERRORS

No Delivery Information Exists	5615	22.7%
Line Item Has No Delivery Quantity	4442	17.9%
Mismatch between total Delivery Quantity and Order Quantity	3872	15.6%
Funding Missing On Sub-Line Item	2478	10.0%
Priced CLIN Has No Funding Information	2153	8.7%
Invalid Entry In MILSTRIP Field	1649	6.7%
Line Item Has No Unit Price	1538	6.2%
Line Item Has No Unit Of Measure	1010	4.1%
Line Item Missing Inspection Acceptance	605	2.4%
Line Item Has No Order Quantity	563	2.3%
Invalid NSN	415	1.7%
LOA Does Not Exist In CMET Master List	291	1.2%
Quantity Contains Decimal Point (Non-Cost Type)	54	0.2%
Delivery Quantity Contains Decimal Point (Non-Cost Type)	49	0.2%
KO Email Missing	11	0.0%
DPAS Priority Rating Incorrect	9	0.0%
No Delivery Date/Pop/Lead Time	4	0.0%
	24,758	

Contract Statistics

AUGUST CONTRACT DATA

SYSKOM	CONTRACT #	#of ERRORS	% Total Errors	
NAVAIR (NAVAIR)	N00019-07-C-0001	1004	4.06%	
NAVSUP (NAVSUP)	N00244-07-D-0035	874	3.53%	7.6%
NAVAIR (NAVAIR)	N00019-04-C-0001	564	2.28%	9.9%
NAVAIR (NAVAIR)	N00421-01-C-0077	444	1.79%	11.7%
NAVAIR (NAVAIR)	N00019-10-D-0019	429	1.73%	13.4%
NAVAIR (NAVAIR)	N00019-06-C-0098	426	1.72%	15.1%
NAVAIR (NAVAIR)	N00019-04-C-0014	410	1.66%	16.8%
NAVAIR (NAVAIR)	N00019-10-C-0020	370	1.49%	18.3%
NAVAIR (NAVAIR)	N00421-04-C-0096	339	1.37%	19.6%
NAVAIR (NAVAIR)	N00019-06-C-0310	336	1.36%	21.0%
NAVAIR (NAVAIR)	N61339-05-D-0013	330	1.33%	22.3%
NAVAIR (NAVAIR)	N00019-10-C-0027	330	1.33%	23.7%
NAVAIR (NAVAIR)	N61339-05-D-6004	318	1.28%	24.9%

BPEL Error Counts vs. MOCAS Work Counts

CONTRACT #	DO	ORGANIZATION	00	ERROR COUNT
N00019-04-C-0001		NAVAL AIR SYSTEMS COMMAND(N00019)	1	564
N00421-01-C-0077		NAVAL AIR WARFARE CENTER AIR DIV(N00421)	21	444
N00019-06-C-0098		NAVAL AIR SYSTEMS COMMAND(N00019)	25	426
N00019-04-C-0014		NAVAL AIR SYSTEMS COMMAND(N00019)	106	410
N00019-10-C-0020		NAVAL AIR SYSTEMS COMMAND(N00019)	12	370
N00421-04-C-0096		NAVAL AIR WARFARE CENTER AIR DIV(N00421)	51	339
N00019-06-C-0310		NAVAL AIR SYSTEMS COMMAND(N00019)	8	336
N00019-10-C-0027		NAVAL AIR SYSTEMS COMMAND(N00019)	21	330
N61339-05-D-0013	0006	NAVAL AIR WARFARE CENTER(N61339)	13	330
W15P7T-04-C-E405		SPACE AND NAVAL WARFARE SYSTEMS(N00039)	7	300
N00039-04-C-2009		SPACE AND NAVAL WARFARE SYSTEMS(N00039)	12	281
N61339-05-D-6007	0003	NAVAL AIR WARFARE CENTER(N61339)	30	278
N00039-08-C-0115		SPACE AND NAVAL WARFARE SYSTEMS(N00039)	14	278
N65236-07-C-5876		SPACE AND NAVAL WARFARE SYSTEMS CEN(N65236)	22	263
N00019-04-C-0123		NAVAL AIR SYSTEMS COMMAND(N00019)	20	254

CONTRACT #	DO #	ORGANIZATION	006	ERROR COUNT
N65236-10-C-2843		SPACE AND NAVAL WARFARE SYSTEMS CEN(N65236)	172	56
N00019-04-C-0014		NAVAL AIR SYSTEMS COMMAND(N00019)	106	410
N66001-07-C-0145		SPACE AND NAVAL WARFARE SYSTEMS(N66001)	80	68
N00019-09-C-0069		NAVAL AIR SYSTEMS COMMAND(N00019)	52	128
N00421-04-C-0096		NAVAL AIR WARFARE CENTER AIR DIV(N00421)	51	339
N00019-09-C-0061		NAVAL AIR SYSTEMS COMMAND(N00019)	40	148
N68936-04-D-0019	0009	NAVAL AIR WARFARE CENTER(N68936)	45	20
N00019-05-C-0044		NAVAL AIR SYSTEMS COMMAND(N00019)	37	74
N00030-09-C-0002		STRATEGIC SYSTEMS PROGRAMS(N00030)	36	109
N00019-04-C-0028		NAVAL AIR SYSTEMS COMMAND(N00019)	35	231
N00421-06-C-0074		NAVAL AIR WARFARE CENTER AIR DIV(N00421)	32	129
N61339-05-D-6007	0003	NAVAL AIR WARFARE CENTER(N61339)	30	278
N00019-03-C-0057		NAVAL AIR SYSTEMS COMMAND(N00019)	20	30
N00421-07-C-0016		NAVAL AIR WARFARE CENTER AIR DIV(N00421)	28	2
N00019-06-C-0098		NAVAL AIR SYSTEMS COMMAND(N00019)	25	426

Contracting Office Outreach - Training & Communication

- Contracting Office Reach-Out
 - ✓ BPEL Error Summary Reports Will be Distributed Monthly to Contracting Offices
 - ✓ BPEL Error Detail Reports are already being distributed daily, weekly, and monthly to each command
 - ✓ A Bi-Weekly CPAP Call will begin within the next 2 weeks
- Training
 - ✓ DASN (ALM) working on developing SPS training documentation surrounding the 5 most common workflow errors and will distribute this month
 - ✓ eBusiness staff will be on hand to assist KOs with correcting errors on new and existing contracts

Contracting Office Outreach - Mitigation Strategies

- Institutionalize Integrity Tool
 - ✓ Integrity is our first line of defense towards clean contract data
 - ✓ **ALL** BPEL Workflow validations are included in the Navy Enterprise version of the Integrity Tool edits
 - ✓ If your organization has not implemented AND institutionalized the use of integrity as part of everyday operations, it is time to do so!
 - ✓ MOCAS is not the only system/ process impacted by bad contract data – Clean contract data leads to clean audits, timely payments, and lowered interest and processing fees across the board!
 - ✓ The integrity tool working group meets the second Wednesday of each month, if you would like to be included, let us know!

Contracting Office Outreach - Mitigation Strategies

- Potential Automated Corrections

- ✓ The potential exists to develop business rules and scripts to automatically clean up some discrepancies in existing contract data
 - ▢ For example:
 - ▢ A script that populates delivery location, inspection/ acceptance information, and the like for service contracts defaulting this information to the Issue By DoDAAC.
 - ▢ A script to assist with quantity mismatches due to user input errors
 - ▢ Would work with community to define the business rules and develop the scripts to be implemented on individual SPS databases.

BREAK

EDA Contract Discrepancy Reports (CDRs) - Overview

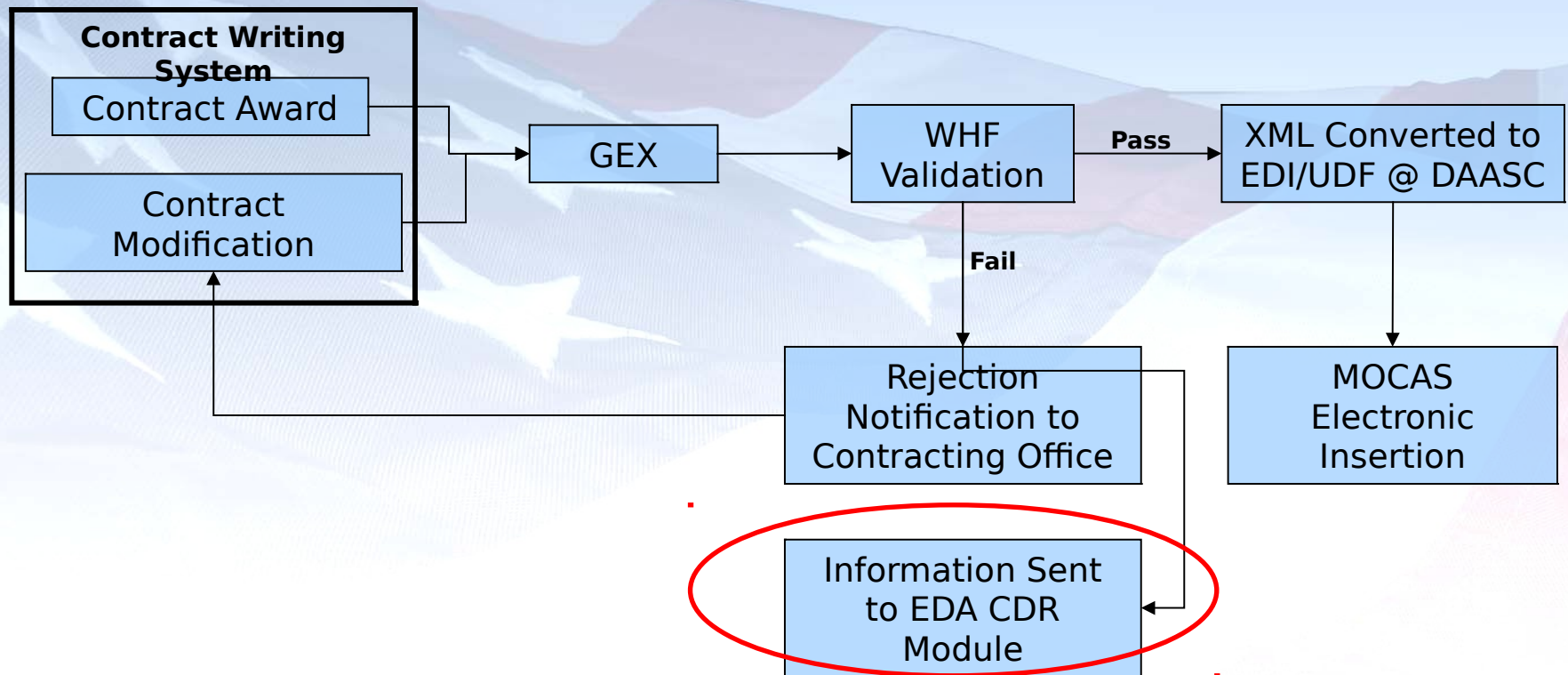
- Contract Deficiency Reports (CDRs) are used to report, track and resolve identified contract deficiencies.
- Contract deficiencies range from conflicting quality requirements to missing long lines of accounting.
- Impacts from Contract Deficiencies
 - Deficiencies may cause delays in production, shipment and delivery.
 - Deficiencies may also result in payment delays, erroneous payments and contract close-out problems.
- CDR Workflow:
 - Designed to help facilitate, track and audit CDRs as they progress through the process to resolution.
 - Actions and comments are captured throughout the life-cycle of the process and are made available to authorized users.
 - EDA sends notifications to EDA users involved in a particular CDR. Actors within the CDR workflow are identified and help control the process.
 - Authorized EDA users may fill any of these roles as required to resolve the deficiency.

EDA Contract Discrepancy Reports (CDRs) - Cont'd

- Current PCO Responsibilities

- ✓ All PCOs must register in EDA
- ✓ Review Assigned CDRs (received via email notification)
 - ▢ Accept
 - ▢ Reject – PCO disagrees with discrepancy
 - ▢ Requires communication w/CDR initiator
 - ▢ Reassign – if action has been assigned to another PCO
 - ▢ Resolve – issue modification, post attachments to EDA etc

Proposed CPAP CDR Process



Proposed CPAP CDR Process

- Automated CDR Process

- Contract Deficiencies flagged by Navy's WHF electronically sent to EDA for Pre-Population of CDR data
- DASN(ALM) will access CDRs, complete, and release with error description back to KOs
- CDRs must be corrected within 24 hours or risk delaying contract processing
- CDR functionality in development now and set to be released in May 2011
 - Contract data needs to be cleaned up prior to this release to avoid the risk of thousands of CDRs monthly

BPEL Workflow Known Issues

1. There is no process where the corrective actions are ever reported. If we need to modify a contract action because of some missing data, it does not auto-populate the corrections to DCMA. Without the complete process there is no closing of the loop.
2. There are several integrity checks that do not fit our business processes or contract rules:
 - a. The MILSTRIP number cannot be an ERP PR number which is an issue for us since we use the MILSTRIP search tool and need the capability to easily find our ERP actions.
 - b. An error is returned if the action is not priced. We use NSP data elements in our CLINs and they are all reported as issues when they are not.
 - c. Delivery Quantity. The BPEL is checking for a delivery quantity on all CLINs/SLINs. If the delivery type is a Requested Delivery Date this is okay because SPS allows the user to enter a delivery quantity. However, if the delivery type is a Period of Performance, SPS does not allow the user to specify a delivery quantity.

BPEL Workflow Known Issues (cont'd)

d. CLIN/SLIN Funding. The BPEL appears to be requiring that all funding be greater than \$0.00. I believe that this is an error because you could have the situation where funding is decreased to zero on one SLIN and replaced by a new SLIN. Also, there is the case where funding has not been assigned yet but will be as soon as the funding is available.

e. Cost Plus Contracts. It appears that BPEL is not correctly handling Cost Plus contracts.

SEAPORT Data Analysis

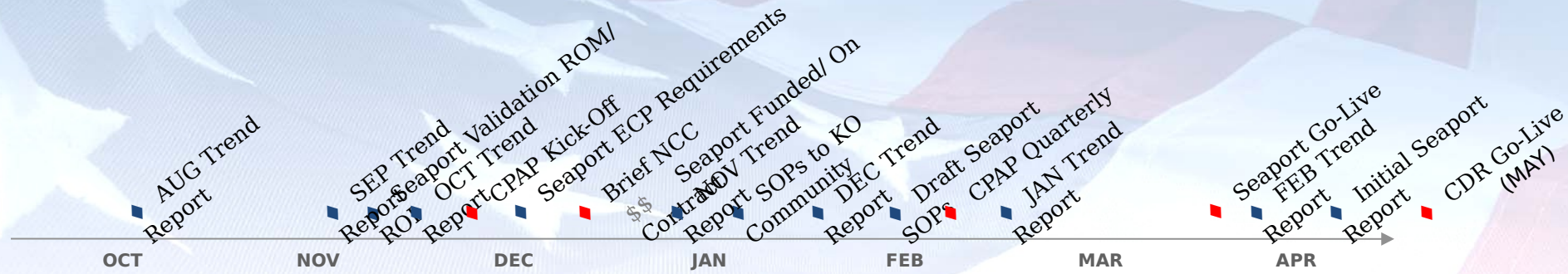
SEAPORT SUMMARY			
MONTH/ YEAR	SUM OF MANUAL CONTRACTS	SUM OF MANUAL WORK COUNTS	TOTAL COST TO NAVY
TOTALS:	13,780	56,151	\$1,068,134.65
Aug-10	4,661	18,982	\$392,737.58
Sep-10	4,907	20,919	\$380,116.40
Oct-10	4,212	16,250	\$295,280.67

- Seaport accounts for ~37% of all Navy manual work counts
- Seaport Award and Modification data was tested through the workflow with dismal results
- Currently working with both Seaport and BPEL team to develop a workable solution to allow Seaport data to be processed through the workflow and electronically submitted to MOCAS

Next Steps

- Analyze the top 10 contracts by DFAS work counts and determine if the errors resulted from true delinquency or what was considered sound business practice by the KO
- Develop training/ outreach materials to help counter the top 5 errors and distribute widely especially targeting the organizations and KOs appearing the most in the data
- Assist Navy FMO in determining why those contracts cleanly exiting the workflow do not appear in the electronic processing fee work counts
- Survey Contract Offices and their use of the SPS Integrity Tool which includes the majority of these edit checks and would thus catch the errors prior to contract release
- Host Bi-Weekly Contract Pay Auto-Population (CPAP) working group meetings to discuss the current issues with the MOCAS BPEL Validation tool and results and how we can work together to come up with the best solution for MOCAS auto-population moving forward
- Analyze September Data and track any trends and deviations from the August data

CPAP POAM



- ◆ Milestone
- ◆ Deliverable
- \$\$ Funding

APPENDIX

Summary of XML Errors Analyzed at Detail Level via SPS

Summary of XML Errors

The following are the Top Five Errors from Oracle BPEL:

- | | |
|--------------------------|-------|
| 1. DELIVERY MISSING | 12093 |
| 2. HASDELIVERY QUANTITY | 7187 |
| 3. TOTALQUANTITY | 6831 |
| 4. FUNDINGMISSING | 3679 |
| 5. SUBLINEFUNDINGMISSING | 3208 |

BEPL Error Code- CheckDelivery

If the Line Item is "Priced" (i.e., CLIN Type of the line item is equal to '1') and the count of Line Item Delivery elements is zero, the validation will fail and the following message is recorded in the weekly error detail report: "**CLIN <linItemNumber> has no Delivery.**"

DELIVERYMISSING: CLIN <linItemNumber> has no Delivery

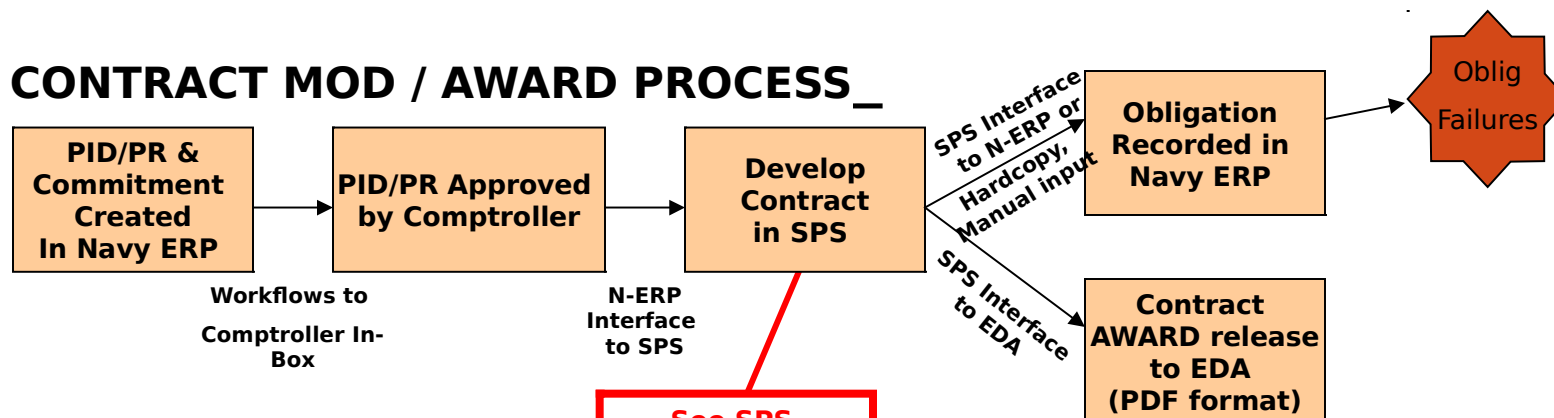
This error occurred due to Price CLIN being "Reserved" with no Price information and no delivery information or Delivery information has not enter in Delivery tab at the CLIN level or Price CLIN with no deliverable item such as NRE CLINS. Non-recurring engineering (NRE) refers to the one-time cost of researching, developing, designing, and testing a new product. There is no deliverable. In some cases, the user entered Period of Performance instead of "Delivery".

Right Click on the picture to the left → document object → "open" to view the full document in Microsoft Word

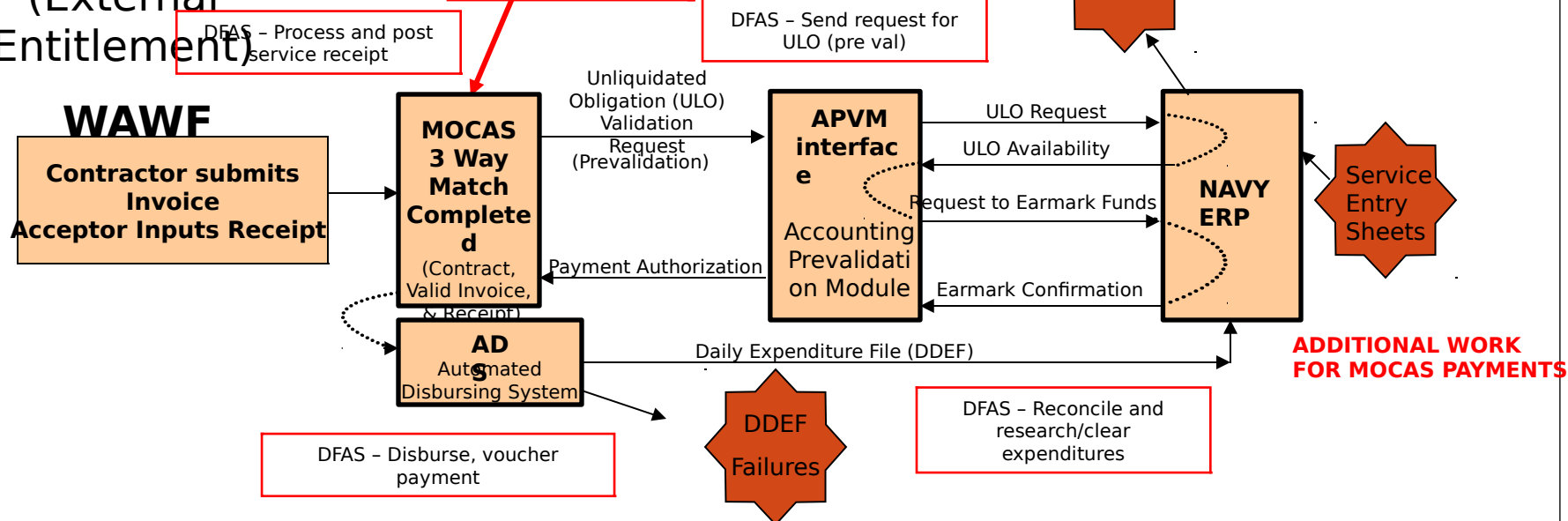
The image displays two screenshots of the Oracle BPEL software interface. The top screenshot shows the 'Line Item Detail Modifications' window for line item 0423, which is a 'Reserved' item. The 'Delivery' tab is selected, and the 'Delivery' button is circled. The bottom screenshot shows the 'Line Item Detail Modifications' window for line item 0009, which is a 'Period of Performance' item. The 'Delivery' tab is selected, and the 'Delivery' button is circled. Both screenshots show the 'Delivery' tab with a table of delivery information. The top screenshot shows a table with columns 'Date', 'Quantity', and 'Location'. The bottom screenshot shows a table with columns 'Period of Performance' and 'Location'. The 'Period of Performance' column contains the text '06-Dec-2005 TO 31-Jan-2006 SEE SECTION 1'. The 'Location' column is empty. The 'Delivery' button is circled in both screenshots.

Procure to Pay Process in Navy ERP

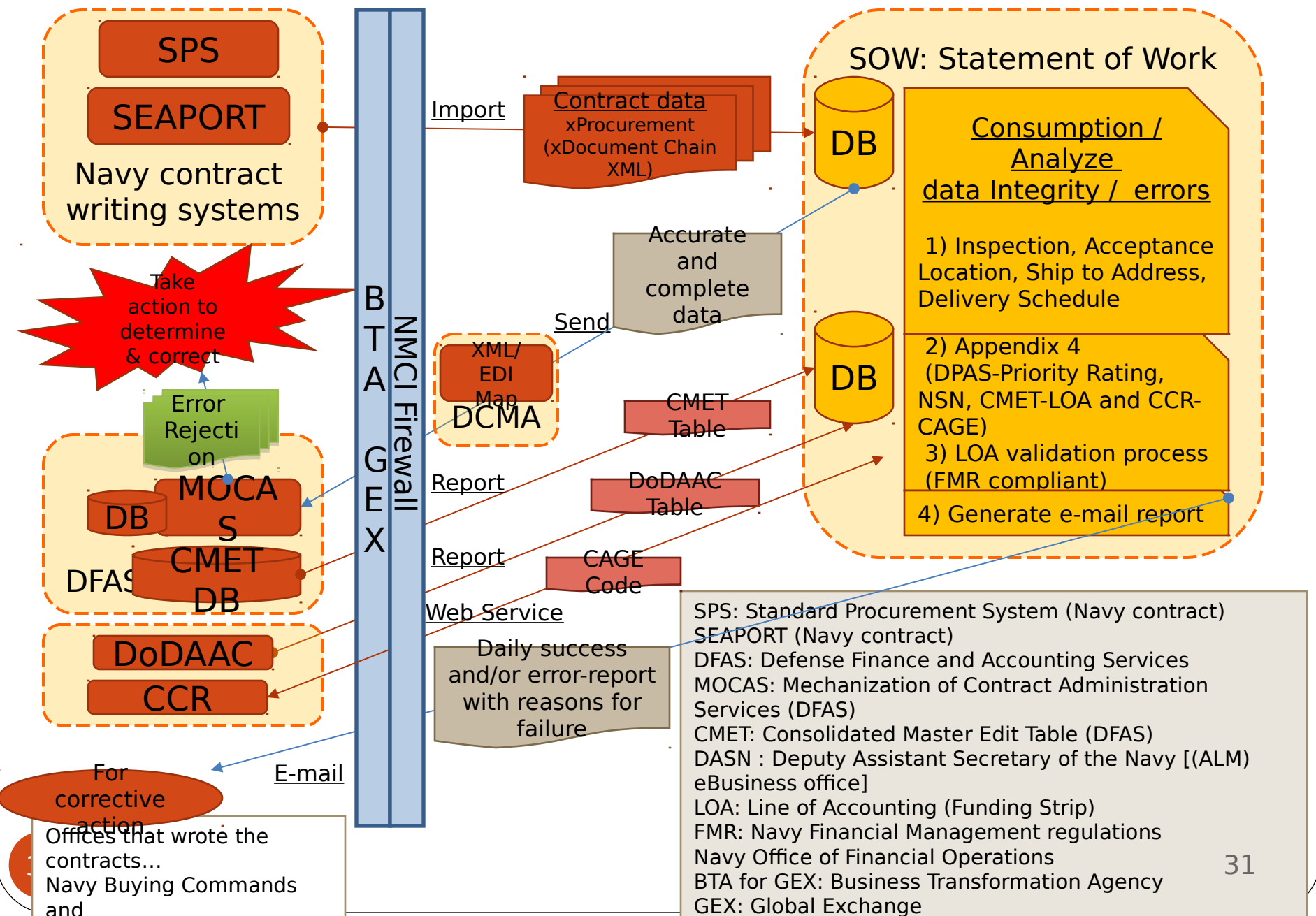
CONTRACT MOD / AWARD PROCESS



CONTRACT PAYMENT PROCESS (External Entitlement)



Oracle BPEL Workflow



To further improve the MOCAS acceptance rate,
the P2P team developed 4 System Change Requests (SCRs)

- ✓ **Mandatory Review Code** – Eliminate manual effort by DFAS to have to manually review simple contracts without financing
- ✓ **Accept Alphanumeric Units of Measure** – Allow for more contracts to be submitted and accepted
- ✓ **Issue by DoDAAC & Ship-to-Code** – Eliminate the failed contracts that did not pass a valid ship-to DoDAAC
- ✓ **Automatically Recycle Processed Electronic Contracts** – Allows for more electronic contracts to process